Data Structures I : Abstract data types

Mauricio Toro
Department of Systems and Informatics
Universidad EAFIT

UNIVERSIDAD EAFIT

Cocktail of the day: Blue Lagoon

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- 50 ml Vodka
- 20 ml Blue Curacao
- 100 ml Lemonade
- 1 orange slice
- Ice cubes

Artificial vision uses trees

https://www.youtube.com/watch?v=EzjkBwZtxp4

Data types

- A data type is a set of values and a set of operations on those values.
- For example, the values of the primitive data type `int` are integers between -2^31 and $2^31 - 1$; the operations of int include + , * , - , / , % , < , and >.
- We could write all of our programs using only the built-in primitive types, but it is much more convenient to write programs at a higher level of abstraction.

Taken from [Sedgewick,2011]

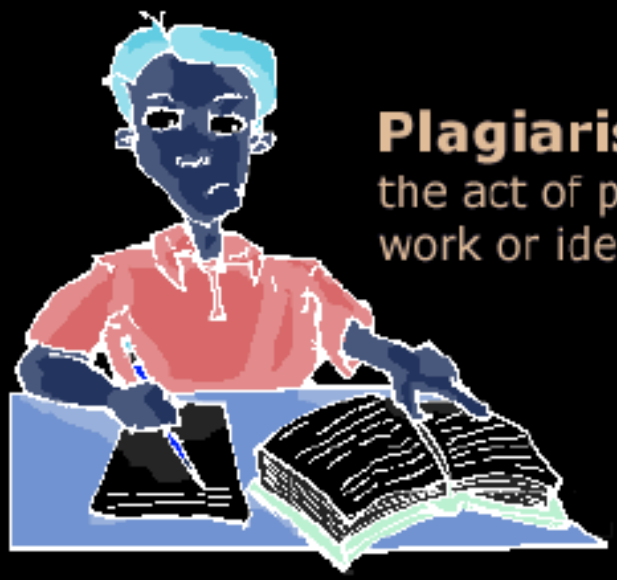
Abstract data types

- An abstract data type (ADT) is a data type whose representation is hidden from the client.
- When using an ADT, we focus on the operations specified in the API and pay no attention to the data representation
- When implementing an ADT, we focus on the data, then implement operations on that data.

Taken from [Sedgewick,2011]

References

- Please learn how to reference images, trademarks, videos and fragments of code.
- Avoid plagiarism



Plagiarism:
the act of presenting another's work or ideas as your own.

Figure: Figure about plagiarism, University of Malta [Uni09]

University of Malta.

Plagarism — The act of presenting another's work or ideas as your own, 2009.

[Online; accessed 29-November-2013].

Further reading

- Data abstraction
  - Sedgewick, Algorithms (4th edition), 2011. Section 1.2: Data Abstraction.